



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

SUCCESS FACTORS OF ERP IMPLEMENTATION IN SMES IN MALAYSIA

Fatemeh Alsadat Mirbagheri
Faculty of Management
Multimedia University
63100 Cyberjaya, Selangor
Malaysia

Govindan Marthandan
Faculty of Management
Multimedia University
63100 Cyberjaya, Selangor
Malaysia

ABSTRACT

The purpose of this research paper is to identify the potential success factors of ERP implementation in small and medium-sized enterprises (SMEs) in Malaysia and identify a priority order of those success factors. The approach of this investigation is empirical where data was collected in March 2011 in Malaysia using questionnaire plus interview from SMEs in Malaysia who have ERP experience in implementation. This research extracted 22 success factors with higher degree of importance for implementation. The result shows that “top management awareness”, “financial budget during implementing”, “clear goals and objectives ERP strategy”, and also “implementation methodology” are the top factors of importance.

Keywords: Enterprise resource planning (ERP), Malaysia, Small and medium-sized enterprises (SMEs), Success factors

1. Introduction



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Adoption of Information technology (IT) in business environment could attract firms to pursue the installation of system packages to have higher quality coordination. Enterprise Resource Planning (ERP) system could facilitate a harmony of data supply for internal and external business process in companies. ERP system packages composed of various applications besides tools and techniques which support financial and cost accounting, human resource management; computer integrated manufacturing, customer information, sales and distribution, logistic and purchasing, and project management (Tarn et al., 2002; Beheshti, 2006). Since data becomes available, the situation is like customer's order in the business where the system could work simultaneously. ERP systems have the impact on the value chain that are based on businesses where the departments are functional, concentrate on added value activities and take out errors (Beheshti, 2006). ERP is to have an important place in organisations as software for successful business (O'Leary, 2000; Cindy, 2000).

Plenty of firms have implemented ERP as a strong strategy to increase their competitive advantage. ERP might obtain supportive competitive advantages in global level market and also help firms to reduce cost and achieve high quality production system (Genoulaz & Millet, 2006). Small and midsize enterprises (SMEs) have the intention to adopt IT system and also integrate it with information system. In order to adjust systems, SMEs are willing to install ERP software to possess tremendous coordination in business processes. It is a fact that ERP installation could have had higher contribution for being a successful business. In addition, according to economic growth of Malaysia, SMEs are growing. Therefore, plenty of SMEs are interested in ERP installation. This survey explores measurement of success factors in SMEs in Malaysia, and also to rank those factors to present the degree of the importance of success factors. The next section reviews literature referring to the implementation of ERP by SMEs, ERP in Malaysia, SMEs in Malaysia, motivation of implementing ERP, and ERP benefits. The "Result" section presents tables of measurement of success



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

factors and their rankings, and also the paper discloses to contribution of researchers, limitation of study and scope of future research.

2. Motivation and Research Objectives

In recent years, SMEs are interested in ERP implementation in favour of improving business processes and also by partnering with large companies like part suppliers of manufacturing industries. Even though ERP implementation would require the business to invest extensively and this effort for adoption of system is time consuming and costly, system installation has wide range benefits for organizations. Malaysia is a fast developing country in South East Asia with ascending economic growth. Malaysian economy has been transformed from agricultural to industrial, and also currently most potent economic sectors are related to information technology (Bank Negara Malaysia, 2009). Authors have attempted to get the research on success factors of ERP implementation and influences in SMEs specifically in Malaysia. The objectives of this research are as below:

- To identify potential success factors of ERP implementation in Malaysian small and medium enterprises.
- To analyze success factors of ERP implementation among Malaysian SMEs.
- To rank the success factors that has impact on ERP implementation in Malaysia SMEs.

3. Literature Review

3.1 SMEs in Malaysia

In this part of study we consider the SMEs in Malaysia. First of all, the classification of Malaysian SMEs was categorized into three levels which are (1) Micro-enterprise, (2) Small enterprise and (3) Medium enterprise. Two key factors are used to define SMEs which are (1) Annual Sale Turnover and (2) Number of Full-Time Employees (THE



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

IMD, 2009). Manufacturing small and medium enterprises provide services which are related to the manufacturing and agro-based industries with full-time employees that do not exceed more than 150 OR with annual sales turnover that do not outstrip RM25 million come under SME category (SME Annual Report, 2007). Services, Information & Communication Technology and Primary Agriculture "Small and medium enterprises which are in the services, primary agriculture and Information & Communication Technology (ICT) sectors are enterprises with full-time employees that do not exceed more than 50 OR with annual sales turnover not rising above than RM5 million" (SME Annual Report, 2007). Full definition of an enterprise is shown in the table below which is considered as SME in Malaysia that was provided by SMIDEC (Small Medium Industries Development Corporation).

Table1. Definition of SMEs in Malaysia

	Micro-enterprise	Small enterprise	Medium enterprise
Manufacturing, Manufacturing-Related Services and Agro-based industries	Sales turnover of less than RM250,000 OR full time employees less than 5	Sales turnover between RM250,000 and less than RM10 million OR full time employees between 5 and 50	Sales turnover between RM10 million and RM25 million OR full time employees between 51 and 150
Services, Primary Agriculture and Information & Communication	Sales turnover of less than RM200,000 OR full time employees	Sales turnover between RM200,000 and less than RM1	Sales turnover between RM1 million and RM5 million OR full time



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Technology (ICT)	less than 5	million OR full time employees between 5 and 19	employees between 20 and 50
-------------------------	-------------	--	-----------------------------

Source: SMECorp (SMALLMEDIUM ENTERPRISES CORPORATION MALAYSIA)

SMEs are functioning in nearly all types of industries, and besides they are different in their range and importance (Idrus & Shahawai, 2009). A study which was done by Bank Negara Malaysia has reported the present number of SMEs in Malaysia is 349,617 (Bank Negara Malaysia, 2009). The percentage of SMEs in Malaysia reports for 99.2 % from the total establishments which numbers 518,996 in the three main economic sectors: manufacturing, services and agriculture in 2006 (Aris, 2007). With this statistic information, it proves that SMEs play an important role as one of the contributors in economy of Malaysia and are profitable in this matter (Idrus & Shahawai, 2009). In some of the Asian countries such as China, Japan and Korea, the economic growth has been influenced by activities of SMEs where their Gross Domestic Product (GDP) had achieved more than 50% in comparison to Malaysia (SME Annual Report, 2007). That shows the percentage in Malaysia might be lower than other countries in Asia, but the government had found out that the SMEs future potential are greatly improving where there is expectation to impact heavily on the economy. It is indeed a motivation for better effectiveness in higher ICT usage plus business process. The government are encouraging SMEs by providing the best opportunity to uptake the best business practices adoption to be competitive in the global and local market (SME Annual Report, 2007). Value added production from SMEs is anticipated to be valued at RM120 billion or 50 per cent of total production in the manufacturing sector by 2020 (Saleh & Ndubisi, 2006).

3.2 ERP in Malaysia



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

In recent years in Malaysia, ICT growth is achieving higher order. According to economic growth and improving IT infrastructure, SMEs are upgrading their enterprises and adopting Information Technology. In addition, in Asia-Pacific region, ERP software vendors are experiencing global expansion by concentrating and targeting on SMEs in developing countries (Huang & Palvia, 2001). Malaysia could make achieving progress in its economy to a great extent in South East Asia. Their investment predominately expanded on the technique which was used during the 1997 economic crisis, the “corporate-wide integration, corporate restructuring and technological innovation policies” that was encouraged by the Malaysian government all over public and private sectors (Ministry of Finance, 2009). Organizational and technological innovations of multinational companies play the two main roles in Malaysian import and export success and economic growth. They could make plenty of growth shares (Hobday, 1996).

The future growth trends of software market of Malaysian mid market ERP was investigated by Frost & Sullivan in 2004. The number of SMEs which are looking to adopt IT system is more than 10,000 in Malaysia. The SMEs have attempting to compete in customer service globally .The ERP vendors offer ERP systems in lower cost and customizable to mid market. SMEs are encouraged to adopt this system in order to strategic investment view point in the wake of increasing return of investment. Majority of SMEs who are adapted to ERP in Malaysia are experienced successfully by customization from local or international vendors. Various sectors such as manufacturing, utilities, technology, high tech, and also government in SMEs are successful to implement ERP systems in Malaysia (Frost & Sullivan, 2004).

3.3 Implementation of ERP at Malaysian SMEs

Competitive environment and globalization caused the implementation of ERP by SMEs and adoption of a wide range of information technology to rival under new



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

conditions (Maldonado, 2009). Although ERP systems are implemented in large enterprise, SMEs are motivated to run ERP on enterprise (Adam & O'doherty, 2000). Indeed, ERP implementation in SMEs is not so different from large enterprise. SMEs try to implement ERP to raise performance of departments through enterprise by providing real-time information, having best practices during business processes, and updating obsolete technical platforms (Adam & O'doherty, 2000). Utterly, the largest ERP application users are included such as manufacturing, utilities, technology, high tech, and also government through Malaysian SMEs. As an instance, manufacturing has experienced high growth with contribution more than 70 percent of revenue and 55 percent of the employment in 2003(Frost & Sullivan, 2004). Therefore, SMEs are encouraged to implement ERP to gain more beneficial outcomes and increasing revenues within the competitive market.

3.4 Motivation of Implementing ERP

Companies have had different experiences of ERP implementation based on the intention to ERP installations. The implementations which produce technically-led consequences in a higher degree designed system that supports approximately and perfectly fit with the processes of the organization that it does not get an eye catching outcome in the short term period of running. In place of the implementations are business-led concentrated and conduct to get a higher level performance of finance in a short term period (Velco, 2007). In fact, ERP implementation would concentrate financial cost of firms by upgrading business process and solve concerns of business-related data flow. Companies tend to engage implementation this system.

3.5 Benefits of ERP System

There are a varied reasons for ERP implementation such as providing single data source, reduce cost, integrate business processes while reducing indirect costs, high speed customer reactivity and the increasing productivity of office. Plus,



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

intergradations of business processes are very crucial benefits of installing ERP which is also one of the primary objectives (Davenport, 2000). Other benefits of ERP adoption include support in reducing inventory costs, increasing efficiency, improving profitability and reducing lead time of manufacturing in business processes. An ERP system can pass through an organization by drastically affecting several processes, and also showing at various levels of benefits (Zhu et al., 2010). ERP system would have provided high effective situation for company environment to reach higher potential during monitoring changes of environment for future, which can also affect the position of the business constantly (Huang & Palvia, 2001).

4. Methodology

The sampling method of this study is non probability for the sake of a small targeted population, so no random sampling was done. According to population, 250 companies seemed to be capable to respond to the questionnaire and provide an interview with their managers and ERP experts. The study ended up, however, with 107 responded samples out of the 250 (42.8% response rate). The analysis of data shows that 51% of respondents have working experience more than 20 years, 34% between 10 to 20 years, and also 15% less than 10 years. In addition, 43 % of respondents have IT background.

This study was restricted to all small and medium-sized companies in Malaysia which either implemented some forms of ERP or total ERP implementation. The components including such as financial management and accounting, production planning, sales and distribution or logistics, asset management, customer relationship management, material and inventory management, quality management, human resource and payroll are installed more in SMEs. Manufacturing, engineering and construction, computer service and high tech, bank, utilities sectors are largest segment to implement ERP system though. In this survey, the population consists of ERP experts



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

and managers of SMEs in any industries in Malaysia. In order to the contact those enterprises, the researcher have sent emails to many companies to make a list of those small and medium companies that have implemented either ERP or even some forms of ERP. Plus, some small and medium-sized companies in Malaysia are planning to run ERP. For collection of data, the researcher went to companies for a structured interview or questionnaire survey forms were sent by email to managers or ERP experts who are working or collaborating with the enterprises. Questionnaire sending was sometimes one to many, because in few companies more than one person is responsible for ERP implementation, and they could respond to questionnaire. The survey is one-time cross-sectional and the unit of analysis of this study is the enterprise.

5. Instrument Development

In this study, the questionnaire was used to collect data. First part of the questionnaire was derived from questionnaire of PhD student thesis from Multimedia University in field of ERP implementation, and second part is excerpted from the investigation of ERP in SMEs in India and modified to this form for Malaysia SMEs and measurement is based on five Likert scale form strongly disagree to strongly agree (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree). The questionnaire was validated by reviewing with ERP specialists and academic setting as well. All experts in this study agreed on the appropriateness, clarity of the items and contents in this questionnaire. This study showed that there were clear and comprehensive ways to respond to the questionnaire and all respondents had agreed that the questionnaire of the study has clarity and adequate content of the items. In addition, the reliability of questionnaire was 0.87 based on Cornbach's Alpha formula.

6. Analysis and Results



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Data analysis was from qualitative to quantitative. To measure success factors statistical tools are required. The Statistical Package for the Social Sciences Version 17.0 (SPSS) was utilized to analyze those data. The test of analyzing these questions is student's t-test. The success factors were tested by T-test and getting mean values of them. In the overall analysis, comparing mean values and then choosing higher degree factors as important factors of ERP implementation in Malaysian SMEs is done.

The success factors are categorized into 21 different categories as mentioned in Table 2. There are two to nine factors in each category. As shown in Table 2, each category used an acronym to indicate each one in the following text. In Table 2, ranking of 21 categories by their mean were shown. It is noticed that Top management involvement and commitment, Monitoring and evaluation of performance, Project management and evaluation have three higher degree of rank in comparing with other success categories within SMEs in Malaysia respectively. Although success factors were measured in various studies in developing countries, in this investigation all factors categorized in 21 categories. In order to categorizing success factors, readers might understand in organized modification with priority degree. In all categories found whole possible reasons which are important in SMEs and modified for developing countries.

Table 2. Ranking of Success Factor Categories in ERP Implementation in Malaysian SMEs

Rank	Categories of Success Factors	Symbol	Mean
1	Top management involvement and commitment	TMIC	4.0536
2	Monitoring and evaluation of performance	MEP	3.89
3	Project management and evaluation	PME	3.13
4	Business plan and long-run vision	BPLV	2.99



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

5	Business and IT legacy systems	BITLS	2.95
6	Use of consultant	UC	2.86
7	Software analysis, testing and troubleshooting	SATT	2.73
8	Enterprise Information management	EIM	2.61
9	User involvement	UI	2.58
10	User training and education	UTE	2.56
11	Knowledge management	KM	2.53
12	Selection of ERP Software	SERPS	2.51
13	Vendor support	VS	2.49
14	System quality	SQ	2.47
15	Change management program	CMP	2.43
16	Corporate culture	CC	2.41
17	ERP team composition, competence and compensation	ERPTCCC	2.40
18	Business process reengineering and minimum customization	BPRMC	2.37
19	Project champion	PC	2.31
20	Enterprise-wide communication and cooperation	ECC	2.23
21	Risk management	RM	2.13

The first 22 effective variables in the success of ERP implementation in SMEs in Malaysia is in the order shown in Table 3. In this table, all those factors which have high degree of importance in ERP implementation in Malaysian SMEs are mentioned.

Table 3. Success Factors by High Degree of Importance in ERP Implementation

Rank	Category	Top Success Factor	Mean
1	TMIC	Top management awareness	4.21



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

2	PME	Financial budget during implementing	4.16
3	BPLV	Clear goals and objectives	4.07
4	BPLV	ERP strategy and implementation methodology	4.03
5	TMIC	Top management support	3.97
6	UC	Consultant support	3.92
7	PME	Project schedule and plan	3.90
8	MEP	Monitoring and feedback implementation	3.89
9	BPLV	Looking ERP as a strategic investment	3.87
10	CMP	Organizational resistance to change	3.84
11	PME	Proper reporting structure	3.80
12	BITLS	Appropriate business and IT legacy systems	3.78
13	EIM	Strong MIS department	3.69
14	SATT	Adequate testing	3.63
15	CC	Cultural fit	3.59
16	UI	Willingness to participate	3.57
17	ERPTCCC	Project team competence	3.49
18	SATT	Data accuracy	3.44
19	SERPS	Related experience of supplier	3.36
20	BPRMC	Business process improvement, optimization, and reengineering	3.29
21	BITLS	Integration and communication between legacy system and ERP	3.17
22	SQ	System stability	3.08

By considering users' views, those factors which were mentioned in table 3 are crucial and effective for having successful implementation. The survey showed top management awareness in top management involvement and commitment category,



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Financial budget during implementing in project management and evaluation category, Clear goals and objectives, ERP strategy and implementation methodology in business plan and long-run vision category respectively. The results is comparing with other developing countries in Asia such as India, South Korea, Singapore. According to results, the success factors are close together however the priority is different. In fact, those factors which are related to top management, financial budget, strategy and goals, consultants are seen as crucial factors to reach success implementation particularly in SMEs through developing countries specially in Asia.

7. Contribution

Adoption of Information technology on SMEs in Malaysia is growing in relation to literature review. Observation, interviews and questionnaire could demonstrate many variables which are important in higher degree and effectiveness for implementing ERP within Malaysia. The experience of some SMEs which attended to this study show top management involvement and commitment category of success factors has more priority. In this category top management awareness and support are two important variables which cover this category. In addition, Top management can provide smoother environment with support and commitment. Awareness of top management while implementing ERP in SMEs brings better results to obtain cooperation of company staffs and coordination in right path. The survey supports project management and provides evaluation of category of success factor that play a vital role to conduct successful implementation. In this study, we would concentrate on the financial budget during implementation, project schedule and planning, and also proper reporting structure. In fact, evaluation of project manager for possessing a realistic and feasible schedule and constructive planning can facilitate to assess financial budget before, during and after implementation. Financial budget during implementation is more effective and beneficial to have successful ERP



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

implementation in SMEs. In this way, reporting is able to manifest the outcomes of team members' efforts.

As a closer view, business plan and long-run vision is another aspect in successful ERP implementation. This category is strategically varied. Variables such as clear goals and objectives, ERP strategy and implementation methodology, and looking at ERP as a strategic investment have more portion in regards of successful implementation. The efficient strategy, clear goals, mission and vision of implementation in IT projects in SMEs can reduce the cost of implementation. Some consultants aid top managers to select methodology in providing company's goals. Therefore, managers should see ERP implementation and IT adaption as a strategic investment as well. Plus, many small corporations which are not regarding these variables might fail its implementation. Business and IT legacy systems category has, hitherto, a critical functions to prevent high cost implementation. In order to integrate and communicate between legacy systems in enterprises and ERP system, there would technically be troubles if software solution can't match off the-shelf –business. Subsequently, it is crucial to check pre-existing data and system, and assess IT infrastructure skill in company. On the other hand, during and after implementation IT projects recognize software analysis, testing and trouble shouting.

Based on this survey, in this category, two variables which play the more important roles are adequate testing and data accuracy. It is essential to put accurate data into ERP system modules, which otherwise would affect other modules and hence providing inaccurate results. The majority of successful ERP observe this rule. Testing and trouble shouting in developed system installed in enterprises can keep the system up while solving technical issues as well.

Careful selection of consultant from CEO is a main decision. Domain knowledge of consultant sets up what package is fitted for business and also coordinating



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

relationship to users. In Malaysia, SMEs that has been integrated with ERP system possess management information system (MIS) department to handle data flow and retrieving data. , the experience of the supplier installing the system i.e. in what sort of business or fitted to which business type is also fundamental. This experience and selection package system would interact together directly to produce successful ERP implementation. It is a great requirement to obtain users' contribution in this sort of IT project. Willingness to participate by enterprises' members makes it easier. In the wake of that, time saving would not occur in company which wasted valuable resources. Competency of team members is another success variable to grow the benefits of the company. Team member working and collaborating in organizational processes and also to what extent are potential for changing the system or other words adaptable to new systems are improving the competency inside the organizational team regarding the new system installation. Henceforward, resistance of organizations' members to change would be contradicting the competency of team members. These two variables have positive relationship within company with ERP implementation.

Business process re-engineering in ERP implementation is rethinking the business processes. By BPR, the company should redesign systems to construct optimization and upgrading of processes. Respectively, job redesign and job rotation would also refer to new business process improvement respectively. System quality category carries high performance in ERP system. In response of this category, system stability with higher fitting to users maintains steady profitability in organization. So, impact of system stability variable should compose more flexibility in the organization throughout ERP implementation in SMEs in Malaysia. ERP implementation makes competitive advantages for companies. In SMEs, the business processes could adapt the system faster than big enterprises. Success factors of ERP implementation motivate SMEs to run this system. In wide range of SMEs in Malaysia, they are ready to install ERP to



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

enter competitive market by serving real-time services to clients or customers. ERP vendors by creating selection software opportunity captivate SMEs in Malaysia.

8. Conclusion

This study presents higher degree of importance of success factors for ERP implementation within SMEs by specifying it in different categories. The findings in this paper carried various limitations. The first potential limitation of this study was related to data gathering. In fact, data gathering of this study was a combination of interview and questionnaire. The study depends on managers' and executives' point of view for responding the questionnaire. Hence, it is tough to confirm an appointment for interview or acceptance to respond to the questionnaire. On the other hand, this study was related to SMEs, and majority of small enterprises either did not implement ERP in the wake of high cost, or even were not informed of ERP exactly. Thus, finding small enterprises to gather data was another limitation of data gathering in this survey. Additionally, the study will be enhanced and developed by considering other dimensions with concentrates in diverse sectors of study related to service sectors in SMEs. SMEs in service sectors such as hotel, bank, real estate, and transportation industry should possess diverse success factors and degree of importance. Overall, this research can be extended within different sectors in SMEs to assist managers in decision making of ERP implementation precisely.

9. References

Adam, F. y O'Doherty, P. (2000), "Lessons From Enterprise Resource Planning Implementation In Ireland: Towards Smaller And Shorter ERP Projects", *Journal of Information Technology*, págs. 305-316.



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Aris N. M. (2007), "SMEs: Building Blocks for Economic Growth", Journal of Department of Statistics, Department of Statistic Malaysia, Kuala Lumpur.

Bank Negara Malaysia (2009). Annual Report 2009, Kuala Lumpur, Malaysia.

Beheshti, H.M. (2006), "What managers should know about ERP/ERP II", Management Research News, Vol. 29 No. 4, pp. 184-93.

Botta-Genoulaz, V. & Millet, R.A. (2006), "An investigation into the use of ERP systems in the service sector", International Journal of Production Economics, 99 (1), 202-221.

Cindy, M. (2000), "ERP Optimization", Florida: St Lucie Press.

Davenport, T. (2000), "Mission Critical: Recognizing The Promise Of Enterprise System", Cambridge: Harvard University Press.

Frost & Sullivan (2004), "Malaysia Mid Market ERP Software Market", July, available at:

www.researchandmarkets.com/reports/365453/malaysia_mid_market_erp_software_market

Hobday, M. (1996), "Innovation in South East Asia: lessons for Europe?", Management Decision, 34(9), 71-81.



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

Huang, Z., & Palvia, P. (2001), "ERP implementation issues in advances and developing countries", *Business Process Management Journal*, 7 (3), 276-284.

Idrus, R. & Shahawai, S.S. (2009), "Research Methodology for Assessing Malaysian SMEs perspective on ERP", Paper presented at the Third Asia International Conference on Modelling & Simulation.

Maldonado, M. (2009), "Factors impacting the Success of ERP Implementations in Small and Medium Enterprises: An empirical assessment from Latin America", Phd in Management Sciences Program, ESADE Business School, Barcelona.

Ministry Of Finance (2009), "Malaysia Economic Report", 14 March, available at: www.treasury.gov.my/index.php?ch=22&pg=165&lang=eng

O'Leary, D. (2000), "Enterprise Resource Planning Systems: Systems, Life Cycle, Electronic Commerce And Risk", Cambridge, UK : Cambridge University Press.

Saleh, A.S.,& Ndubisi N.O. (2006), "SME Development in Malaysia: Domestic and Global Challenges", *University of Wollongong: Economics Working Paper Series*.

SME Annual Report 2007, "Productivity Performance of SMEs", National SME Development Council, Kuala Lumpur, Malaysia, pp. 34-48.

Tarn, J.M., Yen, D.C. & Beaumont, M. (2002). Exploring the rationales for ERP and SCM integration, *Industrial Management & Data Systems*, 102 (1), 26-34.



<http://www.ijccr.com>

International Manuscript ID : ISSN2249054X-V2I6M5-112012

VOLUME 2 ISSUE 6 November 2012

The IMD (2009), "*IMD World Competitiveness Yearbook 2009*", 1 April, available at:
<https://www.worldcompetitiveness.com/OnLine/App/Index.htm>.

Velcu, O. (2007), "Exploring the effects of ERP systems on organizational performance from Finnish companies", *Journal Of Industrial Management And Data Systems*, 107 (9), 1316-1334.

Zhu, Y., Li, Y., Wang, W., & Chen, J. (2010), "What leads to post-implementation success of ERP? An empirical study of the Chinese retail industry", *International Journal of Information Management*, 30(3), 265–276.